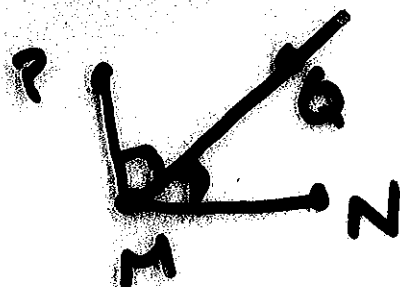
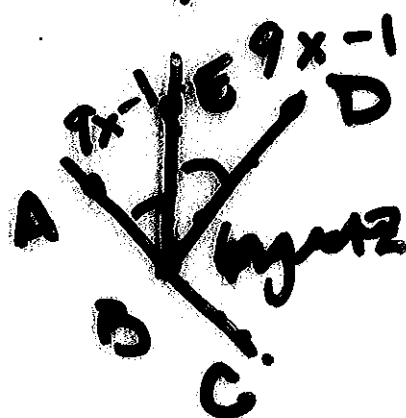


18)



$$\angle PMQ \cong \angle QMN$$

36)



$$24x+14$$

$$9x-1 + 9x-1 + 24x+14$$

$$42x+12=180$$

## 1-7: Intersecting Lines

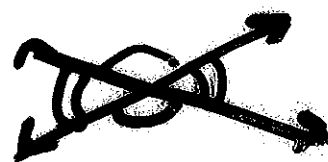
1. Adjacent: Common vertex and common side, no common interior parts



2. Vertical  $\angle$ s: 2 nonadjacent angles formed by intersecting lines

- across from each other

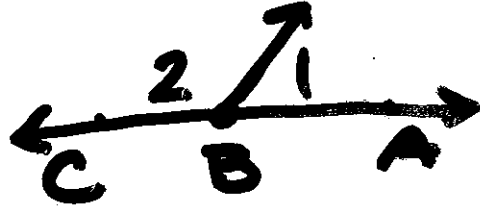
- always  $\cong$   
Congruent



3) Linear Pair: Adjacent angles

- whose noncommon sides are opposite rays

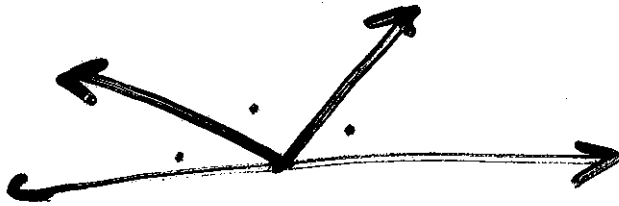
$$m\angle 1 + m\angle 2 = 180^\circ$$



4) Complementary Angles: angles whose sum is  $90^\circ$



5) Supplementary Angles: angles whose sum is  $180^\circ$



## Unit 2: Perpendicular & Parallel Lines

### 3-1 Parallel Lines & Transversals

#### Math Vocabulary:

- // 1. Parallel lines: Two lines that never intersect and are in the same plane
2. Skew lines: Lines that never intersect but are not in the same plane
3. Transversal: A line that intersects two or more lines in a plane at different points
- ⊥ 4. Perpendicular lines: Two lines that intersect to form a right L

• Exterior Angles →  $\angle 1, \angle 2, \angle 7, \angle 8$

• Interior Angles →  $\angle 3, \angle 4, \angle 5, \angle 6$

• Consecutive interior angles

• Alternate exterior angles →  $\angle 1$  and  $\angle 8$        $\angle 2$  and  $\angle 7$

• Alternate interior angles →  $\angle 3$  and  $\angle 6$        $\angle 4$  and  $\angle 5$

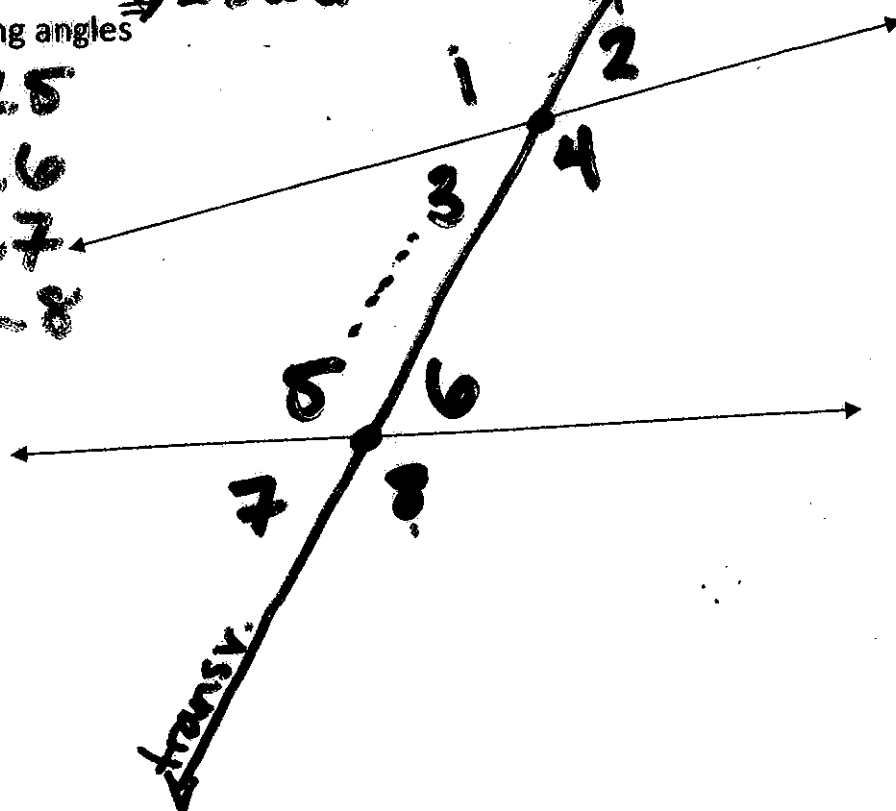
• Corresponding angles

$\angle 1$  and  $\angle 5$

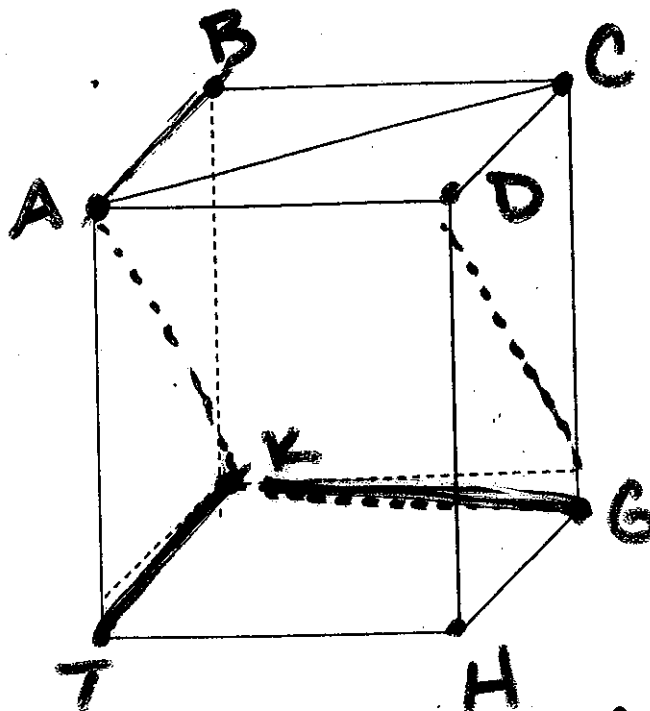
$\angle 2$  and  $\angle 6$

$\angle 3$  and  $\angle 7$

$\angle 4$  and  $\angle 8$



Intersecting, Parallel, or Skew:



Referring to the drawing above:

a. Name all planes that are parallel to ABC

$\overline{TKG}$   $\overline{TKH}$

b. Name all segments that intersect AB

$\overline{BC}$   $\overline{AD}$   $\overline{TA}$   $\overline{EB}$

c. Name all segments that are parallel to KG

$\overline{TH}$   $\overline{BC}$   $\overline{AD}$

d. Name all segments that are skew to TK

$\overline{BC}$ ,  $\overline{AD}$ ,  $\overline{DH}$ ,  $\overline{CG}$   
 $\overline{BD}$   $\overline{AC}$

Are the following intersecting, parallel or skew?

Shelves of a bookcase

// //

Sides of the Great Pyramid

intersecting

The path created by two planes flying at different altitudes in different directions

skew

The path created by two planes flying at different altitudes in the same direction

parallel

//